

**Undergraduate programme - COMPUTER SCIENCE - study mode: full-time**

Applicable from the academic year 2023/24 (for elective and specialization courses - from the 2021/22 academic year)

	Course Name	code	hrs.		1st YR		2nd YR		3rd YR		4th YR	ECTS score
			lect	class/lab	1	2	3	3	5	6	7	
1	Calculus	AM	30	30	EZ							6
2	Foundations of Java Programming	PPJ	30	60	EZ							6
3	Computer Techniques and Architecture	TAK	30	0	E							4
4	Introduction to Management	WDZ	30T	30	Z							3
5	Introduction to Information Systems	WSI	16	30	EZ							5
6	History and Culture of Japan	HKJ	30	0	Z							3
7	English	ANG	0	60	Z							3
8	Occupational Health and Safety	BHP	4	0	Z							0
9	Linear Algebra with Geometry	ALG	30	30		EZ						5
10	Discrete Mathematics	MAD	30	30		EZ						5
11	Relational Databases	RBD	30	30		EZ						5
12	Object Oriented-Programming and Graphical User Interface	GUI	30	30		Z						4
13	Programming in C and C++	PJC	30	30		Z						4
14	Operating Systems	SOP	30	15+15int		Z						4
15	English	ANG	0	60		Z						3
16	Algorithms and Data Structures	ASD	30	30			EZ					5
17	Statistical Data Analysis	SAD	30	30			EZ					5
18	Database Systems	SBD	30	30			EZ					6
19	Digital Systems and Foundations of Electronics	SYC	30	30			Z					4
20	Universal Programming Techniques	UTP	30	30			Z					4
21	Computer Networks and Network Programming in Java	SKJ	30	30			EZ					5
22	English	ANG	0	60			Z					3
23	Artificial Intelligence Tools	NAI	30	30				EZ				7
24	Fundamentals of Python Programming	PPY	30	30				Z				4
25	Physical Education	WF	0	30				Z				0
26	Information Systems Design	PRI	30	30				EZ				7
27	Legal Foundations of Business	PPB	16int	0				Z				3
28	Multimedia	MUL	30	30				Z				7
29	Foreign language	LEK	0	60				Z				3
30	Project 1 (for each specialization)	PRO1	30	30					Z			7
31	Specialization-specific course 1	/	30	30					EZ			6
32	Computer Graphics	GRK	30	30					EZ			6
33	Software Engineering	BYT	30	30					EZ			6
34	IT Project Management	ZPR	30	30					EZ			4
35	Foreign language	LEK	0	60					Z			3
36	Physical Education	WF	0	30					Z			0
37	Project 2 (for each specialization)	PRO2	30	30						Z		7
38	Specialization-specific course 2	/	30	30						EZ		6
39	Modeling and analysis of information systems	MAS	30	30						EZ		6
40	Information Systems Security	BSI	30	30						EZ		6
41	Foreign language	LEK	0	60						Z		3
42	Project 3 (for each specialization)	PRO3	30	30							Z	9
43	Internship			160h								6
44	Human-Computer Interaction	ICK	30	30							EZ	4
45	Foreign language	LEK	0	30							Z	3
<b>Elective courses (6 required)</b>												<del>X</del>
1	Foundations of Computer Simulations	PSM	30	30					EZ			4
2	Database Applications	APBD	30	30					EZ			4
3	Distributed Programming Technologies	TPO	30	30					EZ			4
4	Knowledge Engineering Methods*	MIW	30	30						EZ		4
5	Machine Learning Foundations*	PUM	30	30						EZ		4
6	Basics of Bioinformatics**	PBIO	30	30						EZ		4
7	Business Process Engineering**	IPB	30	30						EZ		4
8	Machine learning deployment and AutoML****	SUML	30	30							EZ	4
9	Automata and Grammars***	AUG	30	30							EZ	4
10	Machine learning operations and system architectures***	ASI	30	30							EZ	4
11	Content Management Systems****	CMS	30	30							EZ	4
<b>Specialization-specific courses</b>												<del>X</del>
1	Internet Technologies (specialization codes: A, IO, E, G)	TIN	30	30						EZ		6
2	Advanced Computer Networks (specialization codes: B, H, C)	ZSK	30	30						EZ		6
3	Intelligent Control Systems (specialization codes: D, F)	ISS	30	30						EZ		6
4	Participatory Game Design (specialization code: J)	PAPG	30	30						EZ		6
5	Database Administration (specialization codes: A, IO)	ABD	30	30							EZ	6
6	Advanced Operating Systems (specialization codes: B, C)	ZSO	30	30							EZ	6
7	Machine Vision (specialization codes: D, E, F)	WMA	30	30							EZ	6
8	Unity - Design Patterns and Programming Practices (spec.: J)	UWP	30	30							EZ	6
9	Mobile Programming (specialization codes: G, H)	PRM	30	30							EZ	6

T - course conducted remotely using teleconferencing platform

ECTS required: **229**

\*Student may choose only one course from each pair marked with the same number of asterisks.

E - exam

Z - graded credit